[Mission Name (Acronym)]

**FSW BUILD VERIFICATION or SYSTEM VALIDATION
TEST DESCRIPTION DOCUMENT**

Flight Software Branch – Code 582

[TEMPLATE] Version 1.3 - 03/14/06

582-2004-001

[Replace with Mission Test Description Document version and number]

Goddard Space Flight Center

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SIGNATURES

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[List each test team member on a separate line. This page needs to be added prior to archive, it does not need to be maintained throughout the development of the document.]

TEST DESCRIPTION UPDATE HISTORY

[This table provides the update history of the template – replace the contents with version history of the Test Description Document.]

Version	Date	Description	Affected Pages
	7/12/03	Original	All
	7/23/03	Updates following review with Software Development Lead.	All
	2/20/04	Formatting changes only.	All
1.1	12/03/05	Final changes based on 12/06/05 review by Test Team Leads.	Cover, 1, 3, and 4
1.2	01/03/06	Truly final changes based on 01/03/06 review by Test Team Leads.	1 and 2
1.3	03/14/06	Changes agreed to at 3/1/06 Standards CCB meeting. These changes allow DCRs #62 and #63 to be closed.	1 and 2

CONTENTS

1.0   INTRODUCTION

1.1   DOCUMENT PURPOSE

[A test description document of FSW tests is to be developed for the entire build verification test program (Build Verification Test Description Document) and similarly for the entire system level test program (System Validation Test Description Document).

Early in the test program, especially for build verification testing, there may be insufficient information to complete every section of this document. In those cases, note in the section that it is a placeholder until further information is available or note the system document that contains the needed information. Thus for Build Verification Testing, this document doesn't need to be written until the scenarios have been fairly well developed. However, for System Validation Testing (SVT), the scenarios need to be identified well ahead of time, and so this document should be written relatively early.

The following paragraph is provided as an example and may be tailored as appropriate.]

This Test Description Document is a planning document that provides a summary of the full set of test scenarios to be developed under the [Build Verification or System Validation] Test program. The description document will be maintained throughout the test program such that it fully represents the FSW test level program when it has been completed. This will be a living document that is updated as new tests are identified, as initially defined tests are split up to become more manageable, and as more information becomes available to fully define the test set. As complete test procedures are developed, Section 2 of this document will maintain pointers to those individual files.

1.2   APPLICABLE DOCUMENTS

Unless otherwise stated, these documents refer to the latest version.

[Should include but is not limited to...]

- [Mission Acronym] Requirements Document (e.g., mission, s/c reqmts., instrument requirements)

- [Mission Acronym] Flight Software Subsystem Specification

- [Mission Acronym] Flight Software Product Plan

- [Mission Acronym] Flight Software Requirements Document(s)

- [Mission Acronym] Flight Software Test Plan

- [Mission Acronym] Flight Software User Guide

- [Mission Acronym] Simulator User Guide

- [Mission Acronym] Ground System User Guide

- [Mission Acronym] Requirements-to-Test Traceability Matrix

1.3   DOCUMENT ORGANIZATION

Section 1 introduces the purpose and organization of the document.

Section 2 provides descriptions for each scenario of the [Build Verification or System Validation] Test program. Descriptions include test type, test description, and test procedure location.

Section 3 describes the data to be tested and any common utilities to be used during testing.

2.0   TEST DESCRIPTIONS

[Complete a test description for each test scenario of the test program (build verification or system validation).   Complete the Requirements-to-Test Traceability Matrix.   Although the matrix may be maintained as a separate document, the matrix should be included in the review and approval of the Test Description Document.

Include a list of hardware configurations here. Elements of this list can then be referenced in Section 2.1 to show the hardware configuration for any specific test. Even if there is only one possible hardware configuration, it should be described and named here so that the details do not have to be repeated in every test section.

The following paragraph is provided as an example and may be tailored as appropriate.]

This section provides a description for each scenario of the [Build Verification or System Validation] Test program. A Requirements-to-Test Traceability Matrix is maintained separately by the test lead and is located at [Identify location.].

2.1   [TEST NAME 1…N]

[Note, the Test Name is the name of the main test procedures. That is there should be one section for each main test procedure.]

Test Type: [For System Validation Test only, Identify test type. Test types include: External Interface, Functional, Performance, Load/Stress, Long Duration, Regression]

Test Description

[Enter a short paragraph that states the test purpose, test objectives, and provides a brief description of the test(s).]

Test Procedure Location

[Enter the location of the archive directory where one can access all the files necessary to reproduce the test. This can not be fill in until the test has been completed.]

Hardware Configuration

[Enter the hardware configuration required for this test, by referencing the hardware configuration (or one of a list of hardware configurations) described in Section 2.0.]

3.0   DATA TO TEST AND COMMON UTILITIES

[Complete the data and utilities section as it is applies to the test program. Use this section to point to the location of the data or utility (i.e., list the database, filename, or document that contains the data or utility). Early in the test program, especially for build verification testing, there may be insufficient information to complete every section. In those cases, note in the section that it is a placeholder until further information is available or note the system document that contains the needed information.

The following paragraph is provided as an example and may be tailored as appropriate.]

This section represents the full set of flight data to be tested to ensure accuracy and consistency with the ground database definition. This section also provides common utilities to be used in the test program. The following provides the location of the data or utility [i.e., list the database, filename, or document that contains the data or utility]. The test plan describes how data is tested and the use of utilities.

3.1   FLIGHT DATA TO BE TESTED

[This section applies only to Build Verification Testing.]

3.1.1   Commands and Parameters

[List the location (i.e., directory or web link for database, filename, document) of the Commands Verification Matrix.]

3.1.2   Telemetry Packets

[List the location (i.e., directory or web link for database, filename, document) of the Telemetry Verification Matrix.]

3.1.3   Events

[List the location (i.e., directory or web link for database, filename, document) of the Events Verification Matrix.]

3.1.4   Tables

[List the location (i.e., directory or web link for database, filename, document) of the Table Verification Matrix.]

3.2   GROUND TEST UTILITIES

[List the test utilities and tools used with a short description of each.]